AIR POLLUTION CONTROL DISTRICT
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April 12, 2014 and April 13, 2014 Exceptional Event (EE) Documentation

Addendum

The Clean Air Act (CAA) recognizes that it may not be appropriate to use monitoring data influenced by "exceptional" events collected by the ambient air quality monitoring network when making certain regulatory determinations. As such, in place regulation[1] allows for the exclusion of monitoring data that has exceeded or violated the National Ambient Air Quality Standard (NAAQS) for particulate matter less than 10 microns (PM_{10}). In 2007, the United States Environmental Protection Agency (USEPA) promulgated regulation that set forth requirements that needed to be met by air agencies requesting exclusion of event influenced exceedances or violations of the PM_{10} NAAQS. The 2007 requirements embodied seven specific elements; the development of a conceptual model, addressing the not reasonably controllable or preventable criteria, analyzing the historical fluctuations, providing the clear causal relationship, describing how the event affected air quality, defining by evidence whether the event was a natural event and finalizing with an analysis of a "but-for" determination.

The October 3, 2016 revisions to CFR sections 50.1 and 50.14 "Treatment of air quality monitoring data influenced by exceptional events" returns to three core statutory elements that align closely with the CAA section 319(b). These core elements (listed below) are supported within this document and have been broken down by sub-elements below to demonstrate compliance with the revisions to the rule "Treatment of air quality monitoring data influenced by exceptional events".

1. That the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation.

2. The event was not reasonably controllable or preventable

3. The event was caused by human activity that is unlikely to recur at a particular location or was a natural event.

This Addendum is a supplement to the April 12, 2014 and April 13, 2014 EE Demonstration originally constructed under the auspices of the 2007 rule. The intent is to help the reader clearly identify where the original EE demonstration meets any new requirement imposed by the October 2016 revision. In an effort to assure that the EE Demonstration for April 12, 2014 and April 13, 2014 meets any new requirement imposed by the October 2016 revision, the Air District has identified the code sections (listed below) that either where revised or are new. In addition, the Air District has provided the section or sections where the current EE Demonstration contains language that specifically addresses the revised or new requirement. Where language is

[1] "Treatment of Data Influenced by Exceptional Events; Final Rule ", 72 FR 13560, March 22, 2007

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contained in several sections, the Air District has included a brief summary explaining the connection. Those sections that are in italic's represent revisions to the rule that cannot be applied because the original demonstration process followed the prior rule, these are marked New Process (NP). To help explain the effect of the April 12, 2014 and April 13, 2014 event upon the monitors that existed during 2014 in Imperial County a brief monitor measurement background is included below.

Finally, the current guidance, "Interim Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds under the Exceptional Events Rule" dated May 2013, has not been revised to reflect the revisions to the new EE Rule. Where there a conflict between the existing May 2013 guidance and the revised regulation exists, the regulation supersedes.

Monitor Measurement Background

In 2014 the Imperial County air monitoring network included five Federal Reference Method (FRM) Size-Selective Inlet (SSI) high volume samplers and two Federal Equivalent Method (FEM) Beta Attenuation Monitor Model 1020 (BAM 1020) measuring PM_{10}. FRM samplers or filter based sampling, run on a preset schedule of 1:6 days. The State and Local Air Monitoring Sites (SLAMS) in El Centro, Westmorland and Calexico did not measure PM_{10} because April 12, 2014 and April 13, 2014 were non-scheduled run days.[2] However, there were two FEM BAM 1020 continuous monitors measuring concentrations in Niland and Brawley. It is important to note that for the April 12, 2014 and April 13, 2014 event the location of these monitors contributed to the different level of impact of particulate matter upon the monitors.

TABLE 1-1
CONCENTRATIONS OF PM_{10} ON APRIL 12, 2014 AND APRIL 13, 2014

DATE	MONITORING SITE	AQS ID	POC(s)	HOURS	24-HOUR CONCENTRATION µg/m³	PM_{10} NAAQS µg/m³
4/12/2014	**Niland**	**06-025-4004**	**3**	**22**	**167**	**150**
4/13/2014	**Brawley**	**06-025-0007**	**3**	**24**	**166**	**150**
4/12/2014	Brawley	06-025-0007	3	24	103	150
4/13/2014	Niland	06-025-4004	3	23	130	150

All time referenced throughout this document is in Pacific Standard Time (PST) unless otherwise noted
April 12, 2014 and April 13, 2014 were not scheduled sampling days

The April 12, 2014 and April 13, 2014 EE Demonstration provides National Oceanic and Atmospheric Administration (NOAA) HYSPLIT back-trajectories (**Figures 2-12 through 2-14**) and a ramp-up analysis, illustrating the meteorological conditions existing as the low-pressure system moved through the region (**Figures 2-10 and 2-11**), support the significant impact to the Niland and Brawley monitors. The April 12, 2014 and April 13, 2014 Demonstration provides evidence

[2] Figure 2-5 of the April 12, 2014 and April 13, 2014 EE Demonstration provides the location of the monitoring sites in Imperial County.

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that gusty westerly winds affected all of southeastern California and Arizona. In particular, these strong, gusty northwesterly winds, as measured by both "upwind" and "downwind" sites transported PM_{10} within the mountain ranges, which divide Imperial County from San Diego County and Riverside County (**Figure 5-2**). The HYSPLIT Models (**Figures ADD-1 through ADD-3**) below provide supporting evidence along with the additional meteorological information in **Tables ADD-1** through **ADD-4** that particulate concentrations elevated by gusty west winds remained elevated as early as April 11, 2014 through April 13, 2014. Observations indicated that although winds were moderate on April 13, 2014, suspended particulates from the previous two days, especially during the evening hours were transported by the moderate northwesterly winds towards the Niland and Brawley monitors. San Diego NWS office notices support the observations of the passing low-pressure systems on April 12, 2014 and April 13, 2014, which caused gusty west winds as early as the evening hours of April 11, 2014 through April 13, 2014. (**Appendix A**).

The HYSPLIT Models, below, indicate that on April 11, 2014 through April 13, 2014 prefrontal gusty winds associated with a trough of low-pressure, as described by the San Diego NWS office, caused differing wind directions coincident with elevated winds speeds. The direction of the winds and the level at which the airflow reached each monitor played a role in the level of average hourly concentrations measured at the Brawley and Niland monitors. The exceedance at the Niland monitor on April 12, 2014 occurred when suspended dust transported from within the San Diego Mountains and deserts the evening of April 11, 2014 carried through into Imperial County in a southwest to west direction affecting the Niland monitor. The airflow during the evening of April 11, 2014 reached surface levels only for the Niland monitor. Airflow at all other monitors did not reach surface levels accounting for the lower level of hourly concentrations at the Brawley monitor. With a slight shift in airflow from a southwest direction to a northwest direction on April 12, 2014, surface level winds affected both the Niland and Brawley monitors. The accumulated suspended dust from the previous evening allowed greater deposition of dust onto the Niland monitor causing an exceedance. Although winds decreased to a moderate level on April 13, 2014, a pronounced surface level airflow and shift to a pronounced northerly direction allowed for the Brawley monitor to exceed the standard. Surface level airflow towards the Niland monitor primarily occurred over water allowing for less saltation and deposition at the monitor.

These suspended particulates affected the Brawley and Niland monitors as seen in elevated concentrations observed in **Table ADD-3** and **Table ADD-4**.

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FIGURE ADD-1
NOAA HYSPLIT BACK TRAJECTORY ENDING 2300 PST APRIL 11, 2014

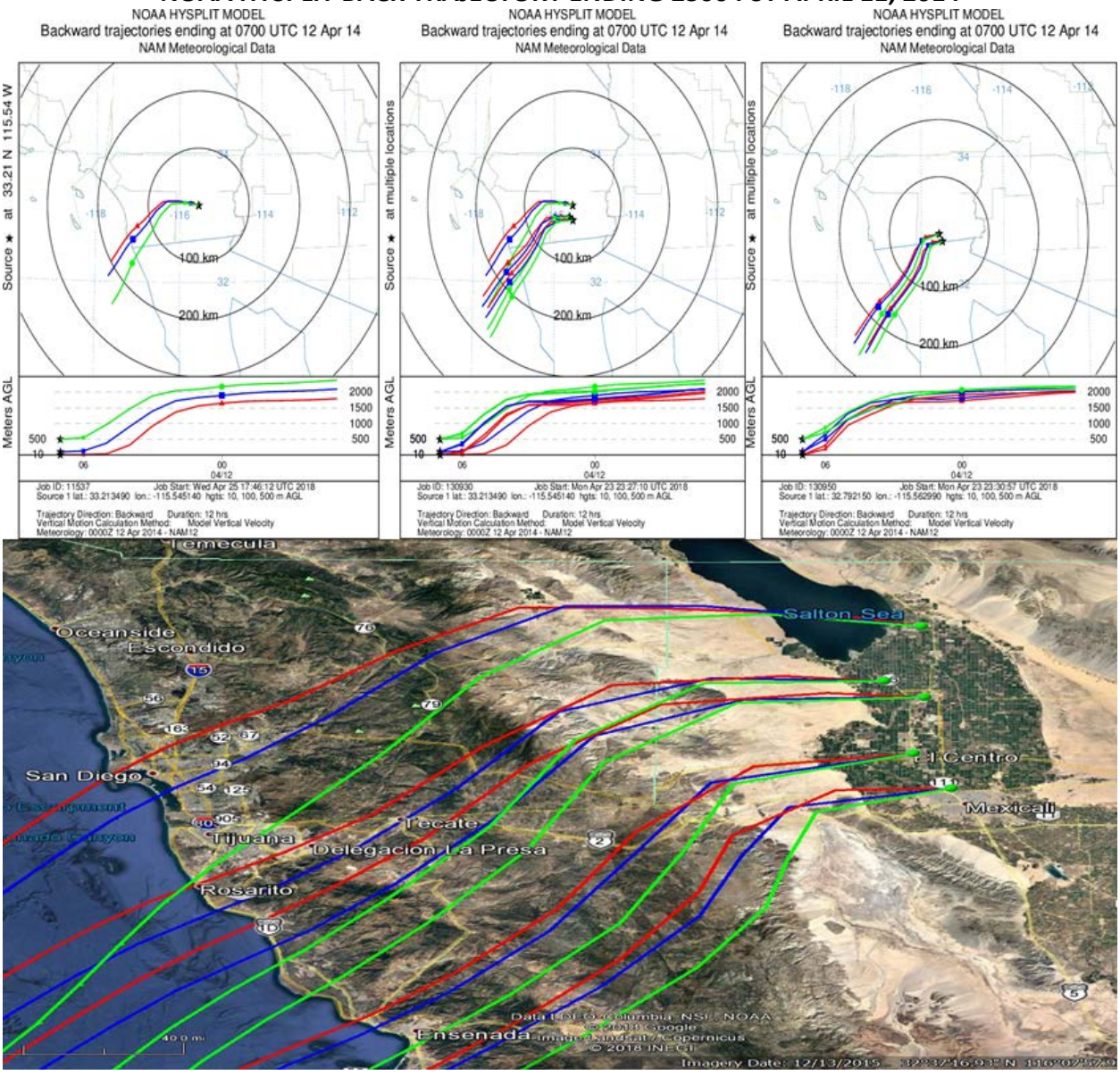

Fig ADD-1: A 12-hour back trajectory ending at 2300 PST on April 11, 2014. The top left image is the back trajectory for Niland. The middle image is the back trajectory for Niland, Westmorland and Brawley. The top right image is the back trajectory for El Centro and Calexico. The image at the bottom is a base map of the same back trajectory for all the monitors. The airflow during the evening hours of April 11, 2014, coincident with elevated wind speeds had a southwest to west flow at the Westmorland, Brawley, El Centro and Calexico monitors. The airflow at the Niland monitor had a southwest to northwest flow over the Salton Sea. Red line indicates 10 meters AGL (above ground level); blue=100m; green=500 meters AGL. Generated through NOAA's Air Resources Laboratory

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FIGURE ADD-2
NOAA HYSPLIT TRAJECTORY ENDING 1500 PST APRIL 12, 2014

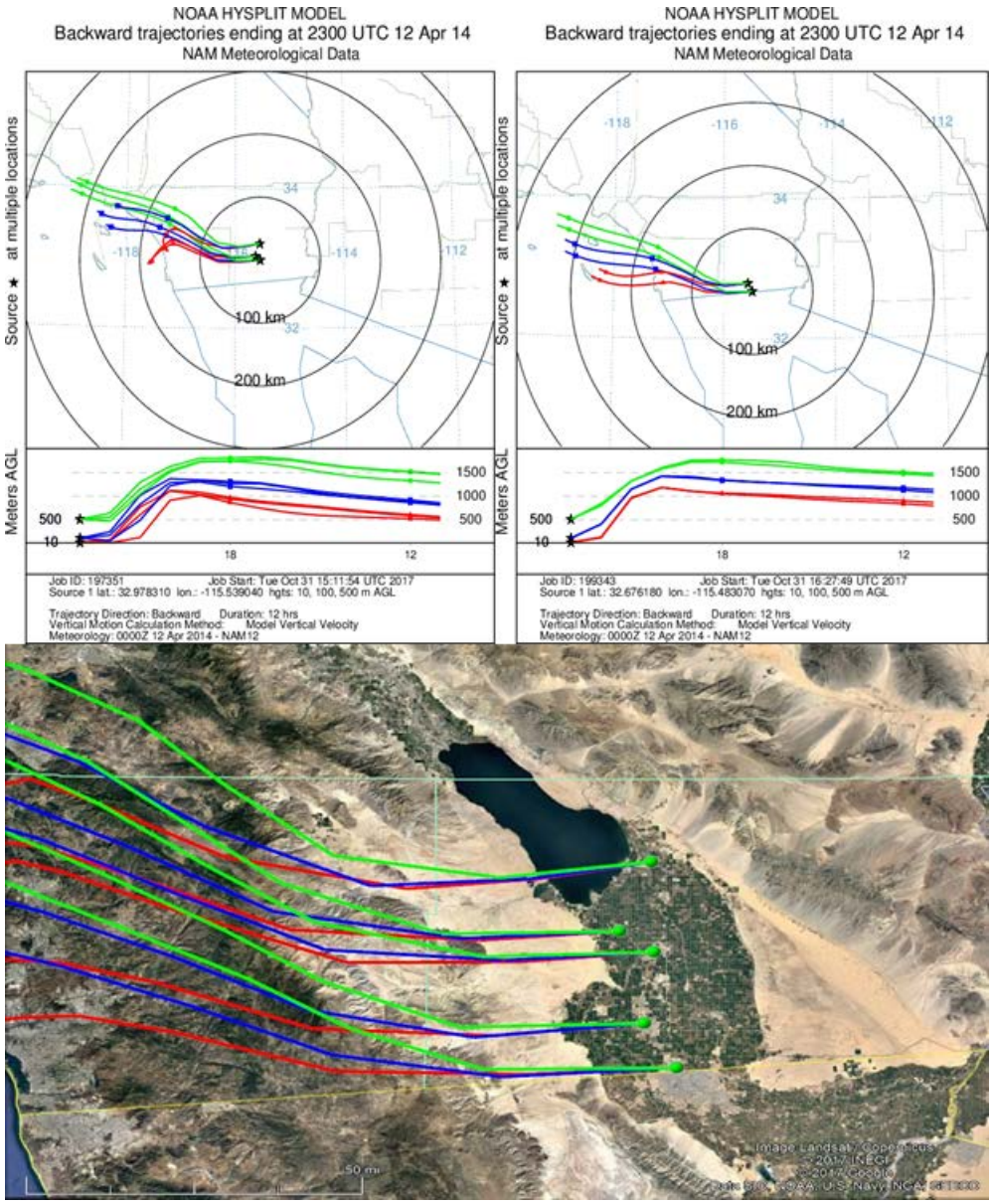

Fig ADD-2: A 12-hour back trajectory ending at 1500 PST on April 12, 2014 coincident with the peak hourly concentration measured at the Niland monitor illustrates airflow from a northwest to west direction. Red line indicates 10 meters AGL (above ground level); blue=100m; green=500 meters AGL. Generated through NOAA's Air Resources Laboratory

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FIGURE ADD-3
NOAA HYSPLIT TRAJECTORY ENDING 0800 PST APRIL 13, 2014

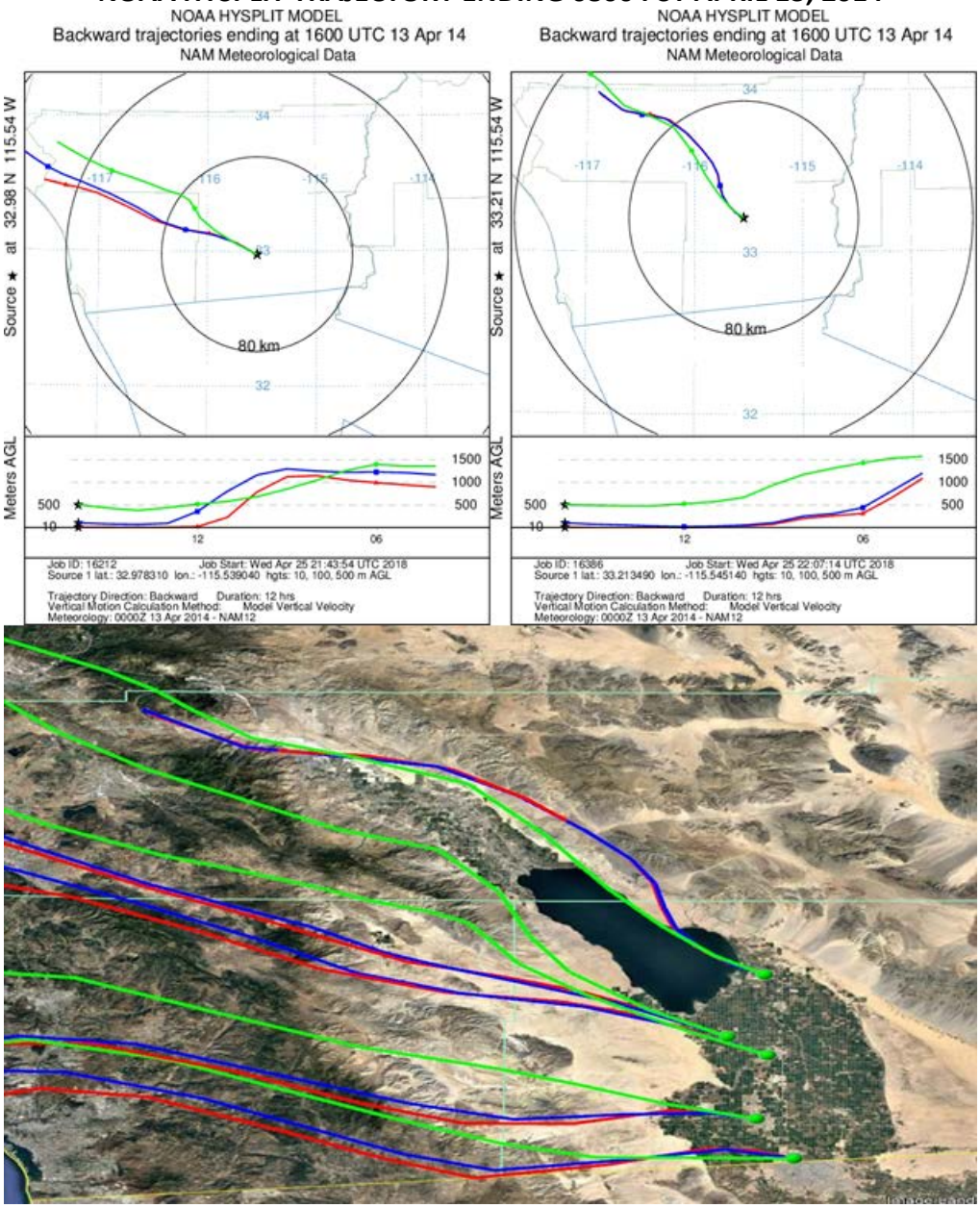

Fig ADD-3: A 12-hour back trajectory ending at 0800 PST on April 13, 2014 coincident with the peak hourly concentration measured at the Brawley monitor illustrates airflow from a northwest direction. The top left image represents the Brawley monitor while the top right image represents the Niland monitor. The bottom image is a base map, which includes all the monitors. Red line indicates 10 meters AGL (above ground level); blue=100m; green=500 meters AGL. Generated through NOAA's Air Resources Laboratory

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TITLE 40 CFR PART 50 § 50.14

(a) Requirements - (1) Scope (i)

This section applies to the treatment of data showing exceedances or violations of any national ambient air quality standard for purposes of the following types of regulatory determinations by the Administrator:

A. Designation (CCA Section 107(d)(1)) or redesignation (CCA Section 107(d)(3))

This section of the Exceptional Event (EE) Demonstration for April 12, 2014 and April 13, 2014 explains the 3 year and 12 month submittal requirements. While the three 3 year and 12 month requirement was removed with the October 2016 revision the requirement to disclose the impact of a regulatory decision with the submittal of the EE demonstration still is required. The submittal of the April 12, 2014 and April 13, 2014 precedes an anticipated regulatory implication upon the submittal of the PM_{10} State Implementation Plan (SIP) in 2018. (**Page 3 section I.2.d**)

B. Assignment/Re-Assignment Classification category to a nonattainment area - comparison to design values N/A
C. Determination that a nonattainment area attained the level of appropriate NAAQS by a specified deadline N/A
D. Determination that an area has data for the specific NAAQS, which qualify the area for an attainment date extension – N/A
E. Determination under CAA section 110(k)(5) that SIP is inadequate under the requirements of CAA section 110 – N/A
F. Other actions case-by-case basis determined by the Administrator – N/A

(b) Determinations by the Administrator (5) High wind dust events. (i)

The Administrator shall exclude data from use in determinations of exceedances and violations, where a State demonstrates to the Administrator's satisfaction that emissions from a high wind dust event caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section provided that such emissions are from high wind dust events. **(Pages 12-24 section II.3)**

Title 40 part 50.1 defines a "high wind dust event" as an event that includes the high-speed wind and the dust that the wind entrains and transports to a monitoring site. The April 12, 2014 and April 13, 2014 EE demonstration compiles evidence that demonstrates that as early as the afternoon of April 11, 2014 wind speeds associated with a low-pressure system affected the Niland monitor resulting in an exceedance on April 12, 2014. Winds remained high into April 13, 2014 as well, affecting the Brawley monitor resulting in a separate exceedance. Appendix A of the April 12, 2014 and April 13, 2014 demonstration contains copies of the Forecast of high winds from the National Weather Service predicting west winds blowing dust. (**Appendix A**)

The EE demonstration for April 12, 2014 and April 13, 2014 contains sections that in its entirety provide evidence that the "high wind dust event" affected air quality. Both the historical norm section, which discusses the historical concentration data, and the clear causal section bring together the argument that the "high wind dust event" affected the Niland and Brawley monitors causing an exceedance on April 12, 2014 and April 13, 2014 respectively. The analysis contained in the April 12, 2014 and April 13, 2014 demonstration contains analyses and statistics showing how the observed event concentration compares to the distribution or time series of historical concentrations of PM_{10}. The April 12, 2014 and April 13, 2014 demonstration contains graphs, time series, and visibility graphs, measurements from regulatory and non-regulatory monitoring stations, satellite imagery and appendices with special weather statements and advisories, graphs showing wind direction and the path of the emissions from the identified source area. (**Pages 12-24 section II.3; Pages 25-45 section III & V; Appendix's B and C**)

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In addition, the April 12, 2014 and April 13, 2014 demonstration provides evidence that the event was a "natural event" that was not reasonably controllable and preventable. Finally, the April 12, 2014 and April 13, 2014 EE demonstration provides evidence that all known anthropogenic sources, upwind of the affected monitor, were controlled but where overwhelmed by the "natural event". (**Pages 31-35 section IV; Appendix D**)

(b) Determinations by the Administrator (5) High wind dust events. (ii)

The Administrator will consider high wind dust events to be natural events in cases where windblown dust is entirely from natural undisturbed lands in the area or where all anthropogenic sources are reasonably controlled as determined in accordance with paragraph (b)(8) of this section. **(Pages 31-35 section IV)**

Title 40 part 50.1 defines a "natural event" as an event and its resulting emissions, which may recur at the same location, in which human activity plays little or no direct causal role. The definition further explains that anthropogenic sources that are reasonably controlled are considered to not play a direct role in causing emissions. As explained below, the April 12, 2014 and April 13, 2014 EE demonstration compiles evidence that demonstrates that all known anthropogenic sources in Imperial County applied reasonable measures but where overwhelmed by the "natural event". The Introduction and the Conceptual Model sections of the April 12, 2014 and April 13, 2014 EE demonstration provides the background topographical and climatologically information surrounding the impacted area and provides trajectory information identifying the areas impacted by the "natural event". (**Pages 31-35 section IV**)

(b) Determinations by the Administrator (5) High wind dust events. (iii)

The Administrator will accept a high wind threshold of a sustained wind of 25 mph for areas in the States of Arizona, California, Colorado, Kansas, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming provided this value is not contradicted by evidence in the record at the time the State submits a demonstration. In lieu of this threshold, States can identify and use an Administrator-approved alternate area-specific high wind threshold that is more representative of local or regional conditions, if appropriate. **(Pages 12-24 section II.3)**

Title 40 part 50.1 defines a "high wind threshold" as the minimum wind speed capable of causing particulate matter emissions from natural undisturbed lands in the area affected by the "high wind dust event". Current guidance indicates that EPA will accept that high winds "could be the cause of a high 24-hour average PM_{10} or $PM_{2.5}$ concentration" if there is at least one full hour where the hourly average wind speed is above the area-specific high wind threshold.[3] EPA further recognizes that sources of wind speed data employ "short-period" averages generally accepting that the hourly average wind speed was above the threshold if the reported short-period wind speed was above the threshold. In addition, current guidance indicates that wind speed data need not necessarily have to be at the location of the exceedance but the data should represent the source area generating the emissions. Finally, guidance states that EPA generally recommends using National Weather Service data or the National Climate Data Center.

The April 12, 2014 and April 13, 2014 EE demonstration provides evidence from Airport, regulatory and non-regulatory meteorological stations that as early as the afternoon of April 11, 2014 elevated winds, in some cases gusts in excess of 25mph, suspended particulate matter into the air. Because winds continued to be elevated through April 12, 2014, elevated particulate matter affected the Niland resulting in an exceedance. Winds were again elevated for a number of hours during the early morning of April 13, 2014. In some cases, gusts of over 20 mph were observed at the El Centro NAF, affecting the Brawley monitor resulting in another exceedance. Appendix B contains QCLCD reports for the Imperial County Airport and the Naval Air Facility Airport as well as other surrounding airports in Riverside County.

[3] USEPA, "Interim Guidance on the Preparation of Demonstration in Support of Requests to Exclude Ambient Air Quality Data Affected by High Winds under the Exceptional Events Rule", May 2013

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(b) Determinations by the Administrator (5) High wind dust events. (iv)
In addressing the requirements set forth in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably preventable criterion, the State shall not be required to provide a case-specific justification for a high wind dust event. **(Pages 12-24 section II.3)**

The April 12, 2014 and April 13, 2014 EE demonstration provides evidence that a "high wind event" occurred as early as the afternoon of April 11, 2014 and continued through April 13, 2014 affecting the Niland and Brawley monitors. The April 12, 2014 and April 13, 2014 EE demonstration provides evidence that a "high wind event" occurred because of a low-pressure system that moved through southern California as early as the afternoon of April 11, 2014. Appendix A of the April 12, 2014 and April 13, 2014 EE demonstration provides copies of Zone and Area Forecast, which includes an Forecast of high winds as they were issued by the San Diego and Phoenix weather offices. As a result, the meteorological event, the low-pressure system and the resulting high winds were not preventable. (**Appendix A**)

(b) Determinations by the Administrator (5) High wind dust events. (v)
With respect to the not reasonably controllable criterion of paragraph (c)(3)(iv)(D) of this section, dust controls on an anthropogenic source shall be considered reasonable in any case in which the controls render the anthropogenic source as resistant to high winds as natural undisturbed lands in the area affected by the high wind dust event. The Administrator may determine lesser controls reasonable on a case-by-case basis.

Both permitted and non-permitted sources are required to comply with Regulation VIII requirements that address fugitive dust emissions. The identified permitted sources are Aggregate Products, Inc., US Gypsum Quarry, Val-Rock, Inc., Granite Construction, US Gypsum Plaster City, Laidlaw Environmental Services, and various agricultural operations.

Non-permitted sources include the wind farm known as Ocotillo Express, and a solar facility known as CSolar IV West. In addition, the desert region is under the jurisdiction of the Bureau of Land Management and the California Department of Parks. All these sources are required to comply with Regulation VIII at all times. Regulation VIII was approved as BACM by EPA with an effective date of May 22, 2013. Therefore, as the HYSPLIT Model found on pages 20-22 of the demonstration demonstrates, the exceedance measured by the Brawley and Niland monitors were due to dust particles transported from desert regions and agricultural lands controlled by Regulation VIII. (**Attached Figs ADD-4 and ADD-5 Maps; Pages 31-35 section IV**)

(b) Determinations by the Administrator (5) High wind dust events. (vi)
For large-scale and high-energy high wind dust events, the Administrator will generally consider a demonstration documenting the nature and extent of the event to be sufficient with respect to the not reasonably controllable criterion of paragraph (c)(3)(iv)(D) of this section provided the State provides evidence showing that the event satisfies the following:
(A) The event is associated with a dust storm and is the focus of a Dust Storm Warning
(B) The event has sustained winds that are greater than or equal to 40 miles per hour
(C) The event has reduced visibility equal to or less than 0.5 miles.
(Section does not apply to the April 12, 2014 and April 13, 2014 EE demonstration)

(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (i)
The not reasonably controllable or preventable criterion has two prongs that the State must demonstrate: prevention and control.

An event is considered not reasonably preventable if reasonable measures to prevent the event were applied at the time of the event. Similarly, an event is considered not reasonably controllable if reasonable measures to control the impact of the event on air quality were applied at the time of the event. The final guidance issued October 2016 explains that when addressing the “not reasonably controllable or preventable” criterion air agencies should identify the natural and anthropogenic sources of emissions causing and contributing to the

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monitored exceedances. Identify the relevant SIP or other enforceable control measures in place for the identified sources as well as the implementation status of the controls and if applicable, provide evidence of effective implementation and enforcement of reasonable controls.

(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (ii)
The Administrator shall determine that an event is not reasonably preventable if the State shows that reasonable measures to prevent the event were applied at the time of the event.

An event is not reasonably preventable if reasonable measures to prevent the event were applied at the time of the event. However, for "high wind events" when PM_{10} concentrations are due to dust raised by high winds from desert areas whose sources are controlled with Best Available Control Measures (BACM) then the event is a "natural event" where human activity played little or no direct causal role and thus not preventable. The April 12, 2014 and April 13, 2014 EE demonstration provides evidence that a large low-pressure system moved into southern California April 12, 2014 suspending particulate matter and keeping the dust in the air well through April 13, 2014. Thus, this event was not preventable. (**Attached Figs ADD-4 and ADD-5 Maps; Pages 31-35 section IV**)

(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (iii)
The Administrator shall determine that an event is not reasonably controllable if the State shows that reasonable measures to control the impact of the event on air quality were applied at the time of the event.

An event is not reasonably controllable if reasonable measures to control the impact of the event on air quality are applied at the time of the event. Both permitted and non-permitted sources are required to comply with Regulation VIII requirements that address fugitive dust emissions. The identified permitted sources are Aggregate Products, Inc., US Gypsum Quarry, Val-Rock, Inc., Granite Construction, US Gypsum Plaster City, and Laidlaw Environmental Services. Non-permitted sources include the wind farm known as Ocotillo Express, and a solar facility known as CSolar IV West. In addition, the desert region is under the jurisdiction of the Bureau of Land Management and the California Department of Parks. All these sources are required to comply with Regulation VIII at all times. Regulation VIII was approved as BACM by EPA with an effective date of May 22, 2013. (**Attached Figs ADD-4 and ADD-5 Maps; Pages 31-35 section IV**)

(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (iv)
The Administrator shall assess the reasonableness of available controls for anthropogenic sources based on information available as of the date of the event.

According to the October 2016 revision, the EPA would consider enforceable control measures that were approved by the EPA as part of a State Implementation Plan. The demonstration must be submitted within 5 years of the date of approval and must address the event-related pollutant and all sources necessary for fulfill the requirements of the Clean Air Act (CAA) with respect to all anthropogenic sources that may have contributed to the event-related emissions. The Imperial County Air Pollution Control District adopted Regulation VIII October of 2012 with approval by EPA of the adopted rules as BACM. The effective date of the rule approval was May 22, 2013. Regulation VIII addresses the desert open areas managed by BLM, California Department of Parks, Construction, Open Areas, Track Out, Paved and Unpaved roads and Agricultural Operations. All stationary sources are required to keep dust emissions controlled.

The April 12, 2014 and April 13, 2014 EE demonstration identifies the Sonoran desert to the west of the Niland and Brawley monitors as the primary source of dust emissions. This addendum includes a Map where identified stationary sources are identified. Non-stationary sources include renewable energy facilities, one wind farm and a solar farm. The remaining area is comprised of managed lands by the Bureau of Land Management, the California Department of Parks, and the United States Military. Regulation VIII as approved

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by EPA with an effective date of May 22, 2013 applies to all these sources and is in force on any given day. The April 12, 2014 and April 13, 2014 EE demonstration contains a section with the results of the review of sources either permitted or not permitted. The section identifies any complains and resolutions. For the April 12, 2014 and April 13, 2014 EE demonstration, no complaints were filed. (**Attached Figs ADD-4 and ADD-5 Maps; Pages 31-35 section IV**)

(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (v)

*Except where a State, tribal or federal air agency is obligated to revise its state implementation plan, tribal implementation plan, or federal implementation plan, the Administrator shall consider enforceable control measures implemented in accordance with a state implementation plan, tribal implementation plan, or federal implementation plan, **approved by the EPA within 5 years of the date of the event**, that address the event-related pollutant and all sources necessary to fulfill the requirements of the Clean Air Act for the state implementation plan, tribal implementation plan, or federal implementation plan to be reasonable controls with respect to all anthropogenic sources that have or may have contributed to the monitored exceedance or violation.*

According to the October 2016 revision, the EPA would consider enforceable control measures that were approved by the EPA as part of a State Implementation Plan. The demonstration must be submitted within 5 years of the date of approval and must address the event-related pollutant and all sources necessary for fulfill the requirements of the Clean Air Act (CAA) with respect to all anthropogenic sources that may have contributed to the event-related emissions. The Imperial County Air Pollution Control District adopted Regulation VIII October of 2012 with approval by EPA of the adopted rules as BACM. The effective date of the rule approval was May 22, 2013. Regulation VIII addresses the desert open areas managed by BLM, California Department of Parks, Construction, Open Areas, Track Out, Paved and Unpaved roads and Agricultural Operations. All stationary sources are required to keep dust emissions controlled in accordance to Regulation VIII. The Imperial County Air Pollution Control District is not obligated to revise or adopt a State Implementation Plan (SIP).

While the April 12, 2014 and April 13, 2014 EE demonstration identifies that the submission of the EE demonstration would be used for regulatory purposes, the submittal of a PM_{10} SIP in 2017, there is currently no legal requirement or obligation, such as a SIP call, for the Imperial County Air Pollution Control District to submit a PM_{10} SIP. (**Attached Figs ADD-4 and ADD-5 Maps; Pages 31-35 section IV**)

(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (vi)

Where a State, tribal or federal air agency is obligated to revise its state implementation plan, tribal implementation plan, or federal implementation plan, the deference to enforceable control measures identified in paragraph (b)(8)(v) of this section shall remain only until the due date of the required state implementation plan, tribal implementation plan, or federal implementation plan revisions. However, where an air agency is obligated to revise the enforceable control measures identified in paragraph (b)(8)(v) of this section in its implementation plan as a result of an action pursuant to Clean Air Act section 110(k)(5), the deference, if any, to those enforceable control measures shall be determined on a case-by-case basis.

(Section does not apply to the April 12, 2014 and April 13, 2014 EE demonstration)

(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (vii)

The Administrator shall not require a State to provide case-specific justification to support the not reasonably controllable or preventable criterion for emissions-generating activity that occurs outside of the State's jurisdictional boundaries within which the concentration at issue was monitored. In the case of a tribe treated as a state under 40 CFR 49.2 with respect to exceptional events requirements, the tribe's jurisdictional boundaries for purposes of requiring or directly implementing emission controls apply. In the case of a federal land manager or other federal agency submitting a demonstration under the requirements of this section, the jurisdictional

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boundaries that apply are those of the State or the tribe depending on which has jurisdiction over the area where the event has occurred.
(Section does not apply to the April 12, 2014 and April 13, 2014 EE demonstration)

(b) Determinations by the Administrator (8) Determinations with respect to the not reasonably controllable or preventable criterion. (viii)
In addition to the provisions that apply to specific event types identified in paragraphs (b)(3)(ii) and (b)(5)(i) through (iii) of this section in addressing the requirements set forth in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably controllable or preventable criterion, the State must include the following components:

(A) *Identification of the natural and anthropogenic sources of emissions causing and contributing to the monitored exceedance or violation, including the contribution from local sources*

The April 12, 2014 and April 13, 2014 EE demonstration identifies the Sonoran desert to the west of the Niland and Brawley monitors as the primary source of dust emissions. This addendum includes a Map where identified stationary sources are identified. Non-stationary sources include renewable energy facilities, one wind farm and a solar farm. The remaining area is comprised of managed lands by the Bureau of Land Management, the California Department of Parks, and the United States Military. (**Figs ADD-4 and ADD-5 Maps**)

(B) *Identification of the relevant state implementation plan, tribal implementation plan, or federal implementation plan or other enforceable control measures in place for the source identified in paragraph (b)(8)(vii)(A) of this section and the implementation status of these controls.*

The Imperial County Air Pollution Control District adopted Regulation VIII October of 2012 with approval by EPA of the adopted rules as BACM. The effective date of the rule approval was May 22, 2013. Regulation VIII addresses the desert open areas managed by BLM, California Department of Parks, Construction, Open Areas, Track Out, Paved and Unpaved roads and Agricultural Operations. All stationary sources are required to keep dust emissions controlled. The Imperial County Air Pollution Control District is not obligated to revise or adopt a State Implementation Plan (SIP). (**Pages 31-35 section IV**)

(C) *Evidence of effective implementation and enforcement of the measures identified in paragraph (b)(8)(vii)(B)*

The and April 12, 2014 and April 13, 2014 EE demonstration contains a section with the results of the review of permitted and non-permitted sources. The section identifies any complains and resolutions. For the April 12, 2014 and April 13, 2014 EE demonstration, no complaints were filed. (**Page 34 section IV.1.c**)

(D) *The provisions in this paragraph shall not apply if the provisions in paragraph (b)(4), (b)(5)(vi), or (b)(6) of this section apply.*

The April 12, 2014 and April 13, 2014 EE demonstration is a "high wind" demonstration and not a Wildfire, Large-scale and high-energy high wind dust event, or a Stratospheric Intrusion.

(c) Schedules and procedures. (2) Initial notification of potential exceptional event. (i)
A State shall notify the Administrator of its intent to request exclusion of one or more measured exceedances of an applicable national ambient air quality standard as being due to an exceptional event by creating an initial event description and flagging the associated data that have been submitted to the AQS database and by engaging in the Initial Notification of Potential Exceptional Event process as follows:

(A) *The State and the appropriate EPA Regional office shall engage in regular communications to identify those data that have been potentially influenced by an exceptional event, to determine whether the identified data may affect a regulatory determination and to discuss whether the State should develop and submit an exceptional events demonstration according to the requirements in this section.*

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The April 12, 2014 and April 13, 2014 EE demonstration discussed the initial notification process by the Imperial County Air Pollution Control District. The initial notification was submitted to the California Air Resources Board May 28, 2015 under the provisions of the 2007 rule this was in advance of the revision, which occurred October 2016. However, the Imperial County Air Pollution Control District had consultations with the California Air Resources before moving forward. Under the prior 2007 rule the Imperial County Air Pollution Control District did submit an initial EE demonstration for comment and review to both USEPA and CARB

(B) *For data that may affect an anticipated regulatory determination or where circumstances otherwise compel the Administrator to prioritize the resulting demonstration, the Administrator shall respond to a States' Initial Notification of Potential Exceptional Event with a due date for demonstration submittal that considers the nature of the event and the anticipated timing of the associated regulatory decision;*

The April 12, 2014 and April 13, 2014 EE demonstration discussed the initial notification process by the Imperial County Air Pollution Control District. The initial notification was submitted to the California Air Resources Board May 28, 2015 under the provisions of the 2007 rule this was in advance of the revision, which occurred October 2016. However, the Imperial County Air Pollution Control District had consultations with the California Air Resources before moving forward. Under the prior 2007 rule the Imperial County Air Pollution Control District did submit an initial EE demonstration for comment and review to both USEPA and CARB

(C) *The Administrator may waive the Initial Notification of Potential Exceptional Event process on a case-by-case basis.*

The April 12, 2014 and April 13, 2014 EE demonstration discussed the initial notification process by the Imperial County Air Pollution Control District. The initial notification was submitted to the California Air Resources Board May 28, 2015 under the provisions of the 2007 rule this was in advance of the revision, which occurred October 2016. However, the Imperial County Air Pollution Control District had consultations with the California Air Resources before moving forward. Under the prior 2007 rule the Imperial County Air Pollution Control District did submit an initial EE demonstration for comment and review to both USEPA and CARB

(c) Schedules and procedures. (3) Submission of demonstrations (iv)
The demonstration to justify data exclusion must include:

(A) *A narrative conceptual model that describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s);*

The April 12, 2014 and April 13, 2014 EE demonstration contains a section, which discusses the Conceptual model, which describes the event that caused the exceedance. The Introduction and the Conceptual Model sections of the April 12, 2014 and April 13, 2014 EE demonstration provides the background topographical and climatologically information surrounding the impacted area and provides trajectory information identifying the areas impacted by the "natural event". In addition, the section contains graphs and figures that provide time sequence analysis and concentration related impacts. (**Pages 1-12 sections I thru II.3**)

(B) *A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation*

(C) *Analysis comparing the claimed event-influenced concentration(s) to concentration(s) at the same monitoring site at other times to support the requirement at paragraph (c)(3)(iv)(B) of this section. The Administrator shall not require a State to prove a specific percentile point in the distribution of data;*

(D) *A demonstration that the event was both not reasonably controllable and not reasonably preventable; and*

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The April 12, 2014 and April 13, 2014 EE demonstration provides evidence that a "high wind event" occurred elevating PM_{10} concentrations from desert areas whose identified sources were controlled with Best Available Control Measures (BACM). Such "high wind events" are not preventable as they are meteorological systems. In the April 12, 2014 and April 13, 2014 EE demonstration a low-pressure system moved through southern California as early as the afternoon on April 12, 2014 and continued through April 13, 2014. The weather system brought strong westerly winds across the mountains and deserts and was then a "natural event". In addition because the identified sources where reasonably controlled with BACM then it is reasonable to conclude that human activity played little or no direct causal role and thus the event was not preventable or controllable.

(E) *A demonstration that the event was a human activity that is unlikely to recur at a particular location or was a natural event.*

The April 12, 2014 and April 13, 2014 EE demonstration provides evidence that a "high wind event" occurred elevating PM_{10} concentrations from desert areas whose identified sources were controlled with Best Available Control Measures (BACM). Such "high wind events" are not preventable as they are meteorological systems. In the April 12, 2014 and April 13, 2014 EE demonstration a large low-pressure system moved through southern California as early as the afternoon of April 12, 2014 and continued through April 13, 2014. The weather system brought strong westerly winds across the mountains and deserts and was then a "natural event". In addition because the identified sources where reasonably controlled with BACM then it is reasonable to conclude that human activity played little or no direct causal role and thus the event was not preventable or controllable.

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FIGURE ADD-4
IDENTIFIED SOURCES

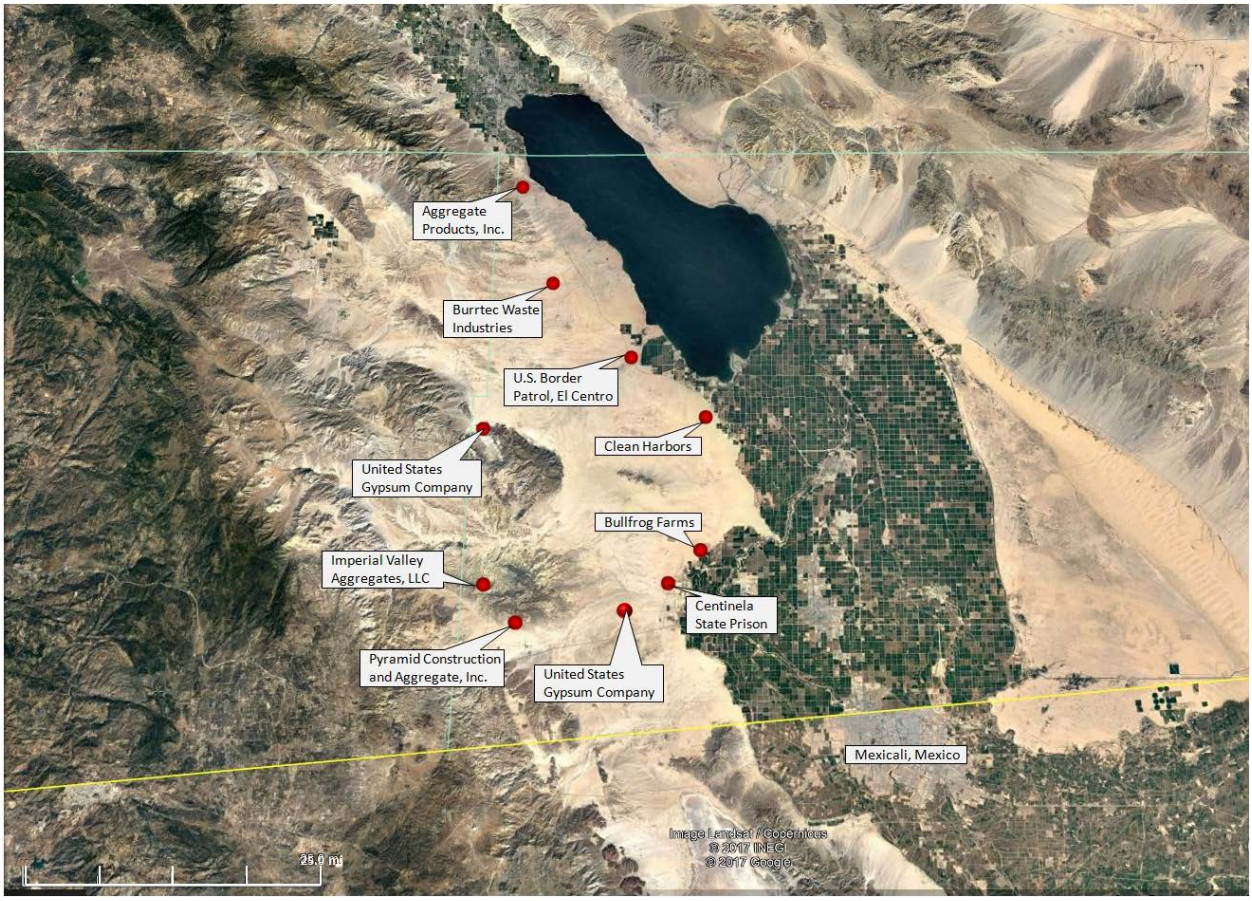

Fig ADD-4: The above map identifies those permitted sources located west, northwest and southwest of the Brawley and Niland monitors. The green line to the north denotes the political division between Imperial and Riverside counties. The yellow line below denotes the international border between the United States and Mexico. The green checker-boarded areas are a mixed use of agricultural and community parcels. In addition, either the Bureau of Land Management or the California Department of Parks manages the desert areas

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FIGURE ADD-5
IDENTIFIED POWER SOURCES

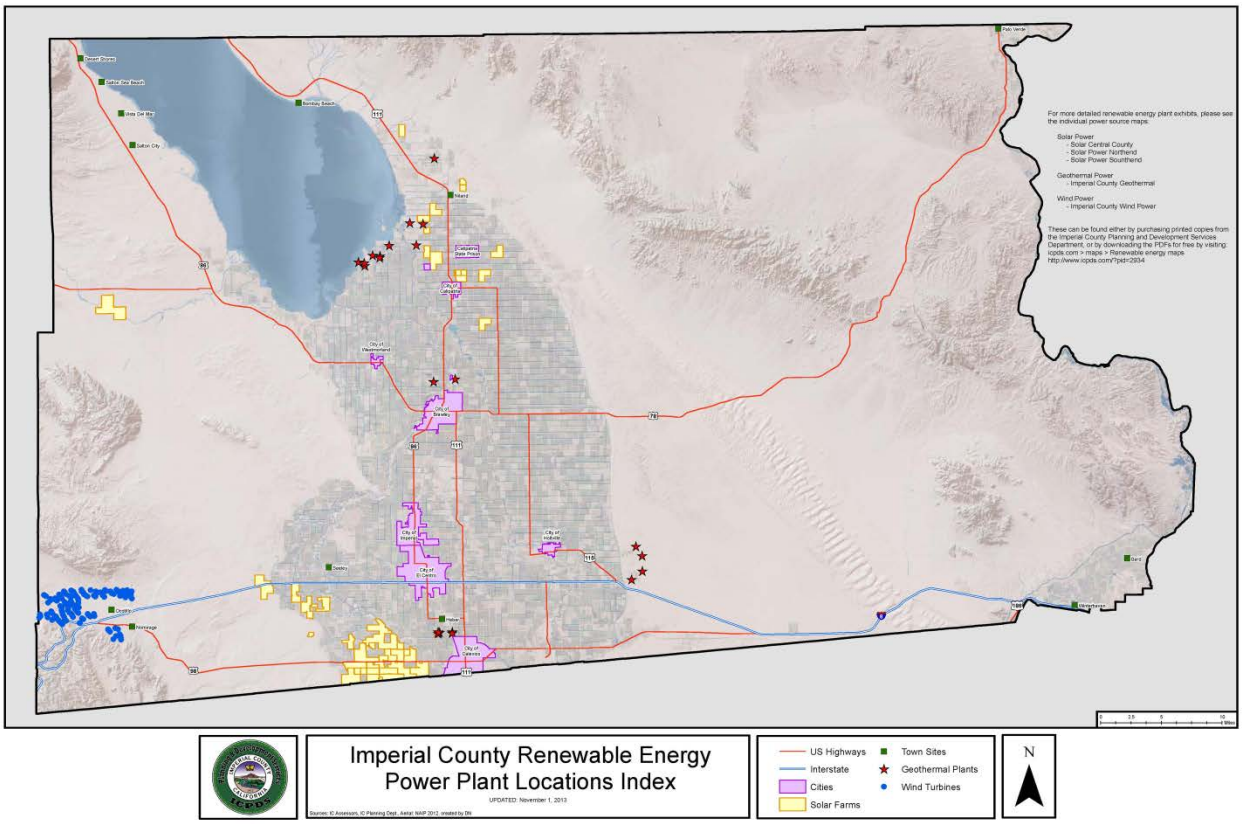

Fig ADD-5: The above map identifies those power sources located west, northwest and southwest of the Brawley and Niland monitors. Blue indicate the Wind Turbines, Yellow are the solar farms and stars are geothermal plants

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TABLE ADD-1
BRAWLEY WIND SPEED TABLE – APRIL 12, 2014

EL CENTRO NAF (KNJK)				IMPERIAL COUNTY AIRPORT (KIPL)				OCOTILLO WELLS				BRAWLEY FEM 4/12/2014	
HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	PM_{10} (µg/m³)
56	25	33	240	53	17	28	270	59	12	18	297	0	117
156	24		240	153	17		270	158	13	21	284	100	58
256	16		260	253	7		310	258	10	17	318	200	149
356	15		260	353	11		250	354	10	17	270	300	52
456	15		240	453	10		250	458	11	17	316	400	28
556	23		230	553	3		VR	553	15	25	284	500	26
656	24		240	653	13		260	658	18	29	293	600	64
756	25	30	240	753	14		260	759	18	32	294	700	29
856	18	26	250	853	17	29	260	858	18	33	267	800	35
956	17	24	240	953	18		250	953	20	38	277	900	109
1056	16	26	260	1053	16		230	1054	14	35	298	1000	61
1156	17		250	1153	11	21	310	1158	15	34	277	1100	33
1256	26	32	250	1253	22	28	250	1248	18	33	260	1200	38
1356	29	38	230	1353	24	32	240	1356	19	34	270	1300	67
1456	28	37	240	1453	23	37	240	1459	18	37	291	1400	195
1556	29	37	240	1553	25	36	240	1548	17	34	277	1500	199
1656	31	39	240	1653	24	32	250	1658	18	35	273	1600	174
1756	26	33	230	1753	23	34	250	1758	20	38	285	1700	323
1856	26	32	240	1853	20	29	260	1857	20	35	273	1800	213
1956	25	32	250	1953	18	33	260	1953	21	36	283	1900	129
2056	24		250	2053	20		260	2058	15	26	288	2000	64
2156	21		250	2153	16		260	2159	18	34	274	2100	59
2256	17		260	2253	15		260	2258	16	33	294	2200	158
2356	21		260	2353	10		250	2358	15	29	300	2300	102

Table ADD-1: Wind speed, wind gust, and wind direction tables for El Centro NAF, Imperial County Airport, and Ocotillo Wells comparative to the concentration of the Brawley FEM Monitor on April 12, 2014. Values indicated in red are wind speed values coincident with the Brawley FEM Monitor measured PM_{10} concentrations above 100 µg/m³. Collected meteorological observations are from a variety of sources with varying equipment and exposure. **Appendix B** contains additional information regarding meteorological observations

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TABLE ADD-2
NILAND WIND SPEED TABLE – APRIL 12, 2014

EL CENTRO NAF (KNJK)				IMPERIAL COUNTY AIRPORT (KIPL)				OCOTILLO WELLS				NILAND FEM 4/12/2014	
HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	PM_{10} (µg/m³)
56	25	33	240	53	17	28	270	59	12	18	297	0	121
156	24		240	153	17		270	158	13	21	284	100	109
256	16		260	253	7		310	258	10	17	318	200	55
356	15		260	353	11		250	354	10	17	270	300	38
456	15		240	453	10		250	458	11	17	316	400	54
556	23		230	553	3		VR	553	15	25	284	500	32
656	24		240	653	13		260	658	18	29	293	600	25
756	25	30	240	753	14		260	759	18	32	294	700	48
856	18	26	250	853	17	29	260	858	18	33	267	800	34
956	17	24	240	953	18		250	953	20	38	277	900	29
1056	16	26	260	1053	16		230	1054	14	35	298	1000	26
1156	17		250	1153	11	21	310	1158	15	34	277	1100	30
1256	26	32	250	1253	22	28	250	1248	18	33	260	1200	87
1356	29	38	230	1353	24	32	240	1356	19	34	270	1300	197
1456	28	37	240	1453	23	37	240	1459	18	37	291	1400	363
1556	29	37	240	1553	25	36	240	1548	17	34	277	1500	481
1656	31	39	240	1653	24	32	250	1658	18	35	273	1600	
1756	26	33	230	1753	23	34	250	1758	20	38	285	1700	
1856	26	32	240	1853	20	29	260	1857	20	35	273	1800	313
1956	25	32	250	1953	18	33	260	1953	21	36	283	1900	297
2056	24		250	2053	20		260	2058	15	26	288	2000	269
2156	21		250	2153	16		260	2159	18	34	274	2100	302
2256	17		260	2253	15		260	2258	16	33	294	2200	331
2356	21		260	2353	10		250	2358	15	29	300	2300	433

Table ADD-2: Wind speed, wind gust, and wind direction tables for El Centro NAF, Imperial County Airport, and Ocotillo Wells comparative to the concentration of the Niland FEM Monitor on April 12, 2014. Values indicated in red are wind speed values coincident with the Niland FEM Monitor measured PM_{10} concentrations above 100 µg/m³. Collected meteorological observations are from a variety of sources with varying equipment and exposure. **Appendix B** contains additional information regarding meteorological observations

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TABLE ADD-3
BRAWLEY WIND SPEED TABLE – APRIL 13, 2014

VOLCAN MOUNTAIN				FISH CREEK MTNS				JACQUELINE-COCHRAN				MECCA				BRAWLEY FEM	
																	4/13/2014
HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	PM_{10} ($\mu g/m^3$)
100	25	36	259	100	12	28	201	52	19.6	35.7	310	100	17.3		328	0	59
200	25	31	258	200	13	18	201	152	19.6	32.2	330	200	17.8		327	100	44
300	24	31	262	300	12	23	201	252	23	31.1	320	300	19.9		329	200	27
400	21	28	265	400	11	20	204	352	20.7	31.1	330	400	17.1		331	300	33
500	21	29	266	500	13	20	211	452	19.6	27.6	320	500	14.1		334	400	33
600	18	26	267	600	8	20	202	552	13.8	23	320	600	13		330	500	156
700	22	29	266	700	7	14	224	652	10.4		340	700	11.1		326	600	356
800	22	29	264	800	9	14	207	752	13.8		330	800	16.4		330	700	489
900	17	23	264	900	6	14	173	852	10.4		330	900	14.6		323	800	576
1000	15	20	256	1000	4	10	229	952	6.9		290	1000	12.4		311	900	408
1100	15	22	260	1100	6	14	39	1052	9.2		290	1100	10.5		298	1000	300
1200	15	24	264	1200	6	12	6	1152	3.5			1200	9.2		284	1100	250
1300	13	19	264	1300	4	12	36	1252	6.9			1300	7.4		244	1200	169
1400	13	21	265	1400	3	12	352	1352	0			1400	6.1		205	1300	158
1500	12	20	268	1500	5	10	9	1452	3.5			1500	5.1		191	1400	151
1600	11	16	267	1600	6	12	322	1552	3.5			1600	3.9		92	1500	145
1700	9	14	268	1700	5	12	343	1652	8.1		300	1700				1600	117
1800	4	11	276	1800	15	20	209	1752	12.7		340	1800				1700	103
1900	2	8	259	1900	15	24	212	1852	15	23	330	1900				1800	82
2000	3	6	269	2000	17	24	211	1952	17.3		330	2000				1900	92
2100	1	4	231	2100	16	24	209	2052	18.4		340	2100				2000	42
2200	6	7	7	2200	13	19	207	2152	17.3	24.2	330	2200				2100	36
2300	12	15	58	2300	10	18	194	2252				2300				2200	89
2400	13	18	89	2400	11	17	196	2352	11.5		330	2400				2300	79

Table ADD-3: Wind speed, wind gust, and wind direction tables for Volcan Mountain, Fish Creek Mountains, Jacqueline-Cochran Regional Airport, and Mecca comparative to the concentration of the Brawley FEM Monitor on April 13, 2014. Values indicated in red are wind speed values coincident with the Brawley FEM Monitor measured PM_{10} concentrations above 100 $\mu g/m^3$. Collected meteorological observations are from a variety of sources with varying equipment and exposure. **Appendix B** contains additional information regarding meteorological observations

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TABLE ADD-4
NILAND WIND SPEED TABLE – APRIL 13, 2014

VOLCAN MOUNTAIN				FISH CREEK MTNS				JACQUELINE-COCHRAN				MECCA				NILAND FEM	
																	4/13/2014
HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	W/S	W/G	W/D	HOUR	PM_{10} ($\mu g/m^3$)
100	25	36	259	100	12	28	201	52	19.6	35.7	310	100	17.3		328	0	
200	25	31	258	200	13	18	201	152	19.6	32.2	330	200	17.8		327	100	217
300	24	31	262	300	12	23	201	252	23	31.1	320	300	19.9		329	200	216
400	21	28	265	400	11	20	204	352	20.7	31.1	330	400	17.1		331	300	182
500	21	29	266	500	13	20	211	452	19.6	27.6	320	500	14.1		334	400	217
600	18	26	267	600	8	20	202	552	13.8	23	320	600	13		330	500	121
700	22	29	266	700	7	14	224	652	10.4		340	700	11.1		326	600	121
800	22	29	264	800	9	14	207	752	13.8		330	800	16.4		330	700	171
900	17	23	264	900	6	14	173	852	10.4		330	900	14.6		323	800	145
1000	15	20	256	1000	4	10	229	952	6.9		290	1000	12.4		311	900	156
1100	15	22	260	1100	6	14	39	1052	9.2		290	1100	10.5		298	1000	127
1200	15	24	264	1200	6	12	6	1152	3.5			1200	9.2		284	1100	140
1300	13	19	264	1300	4	12	36	1252	6.9			1300	7.4		244	1200	102
1400	13	21	265	1400	3	12	352	1352	0			1400	6.1		205	1300	115
1500	12	20	268	1500	5	10	9	1452	3.5			1500	5.1		191	1400	70
1600	11	16	267	1600	6	12	322	1552	3.5			1600	3.9		92	1500	69
1700	9	14	268	1700	5	12	343	1652	8.1		300	1700				1600	129
1800	4	11	276	1800	15	20	209	1752	12.7		340	1800				1700	127
1900	2	8	259	1900	15	24	212	1852	15	23	330	1900				1800	89
2000	3	6	269	2000	17	24	211	1952	17.3		330	2000				1900	78
2100	1	4	231	2100	16	24	209	2052	18.4		340	2100				2000	176
2200	6	7	7	2200	13	19	207	2152	17.3	24.2	330	2200				2100	114
2300	12	15	58	2300	10	18	194	2252				2300				2200	52
2400	13	18	89	2400	11	17	196	2352	11.5		330	2400				2300	72

Table ADD-4: Wind speed, wind gust, and wind direction tables for Volcan Mountain, Fish Creek Mountains, Jacqueline-Cochran Regional Airport, and Mecca comparative to the concentration of the Niland FEM Monitor on April 13, 2014. Values indicated in red are wind speed values coincident with the Niland FEM Monitor measured PM_{10} concentrations above 100 $\mu g/m^3$. Collected meteorological observations are from a variety of sources with varying equipment and exposure. **Appendix B** contains additional information regarding meteorological observations